(b) if so, the details thereof; and

(c) the measures contemplated by Government to make the National Highways in the hilly areas more safer?

THE MINISTER OF STATE OF THE MINISTRY OF ROAD TRANSPORT AND HIGHWAYS [MAJ. GEN. (RETD.) B.C. KHANDURI]: (a) and (b) No assessment of the fatal road accidents on the highways in Himachal Pradesh has been made by this Ministry. However, an analysis carried on the basis of all India road accident data, shows that drivers' fault accounts for 83.4% of accidents. Other contributory causes of accidents are passengers' fault (2.4%), bad weather (0.9%), bad road (1.1%), mechanical fault of vehicles (3.0%), pedestrians' fault (2.3%), other factors (6.8%).

(c) The following measures are being undertaken by the Government to make the National Highways in the hilly areas more safe:

(i) Widening and strengthening of narrow and weak sections of National Highways;

(ii) Improvement of deficient road geometry design which ensures adequate width, horizontal and vertical alignment, curve, radii, easy grades and sight distance etc.

(iii) Road design measures which includes design and provision of good drainage system, protection like parapets, retaining walls, breast walls, railings, snow fences, snow and boulder shelters, rolling boulder buffer (netting) etc.

(iv) Traffic control devices like retro-reflective road signs, signals, thermo plastic pavement markings, delineators.

(v) Spreading awareness about road safety through NGOs as also through print and audio-visual media etc.

Rubberised Roads

1012. SHRI N.K. PREMACHANDRAN: Will the Minister of ROAD TRANSPORT AND HIGHWAYS be pleased to state:

(a) whether there is any proposal to rubberise the roads in rural and urban areas;

(b) Government's reaction thereto;

(c) whether any States have introduced rubberisation of roads;

(d) if so, the details thereof;

(e) whether any States have expressed their willingness to undertake rubberisation of roads; and

(f) if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF ROAD TRANSPORT AND HIGHWAYS [MAJ. GEN. (RETD.) B.C. KHANDURI]: (a) and (b) Government have formulated policy to use rubber/polymer modified bitumen during the re-surfacing of National Highways and other Centrally Sponsored Schemes, subject to its availability. Presently, provision of rubber/polymer modified bitumen surfacing has been sanctioned on 2567 kilometre length of National Highways in various States.

(c) to (f) In pursuance of the Government's policy, the States have also been advised to use rubber/polymer modified bitumen for road works in State Sector. However, details are not available as these fall under the purview of State Governments.

Kollam by-pass in Kerala

1013. SHRI N.K. PREMACHANDRAN: Will the Minister of ROAD TRANSPORT AND HIGHWAYS be pleased to state:

(a) whether phase II of Kollam by-pass in Kerala has been completed;

(b) if so, the details thereof, and if not, the work which is yet to be completed and the reasons for the non-completion of such work and the stage at which the work stands at present and time by when the pending work is likely to be completed;

(c) whether any steps have been taken for commencement of the third phase; and

(d) if so, the details thereof and if not, the reasons therefor?

THE MINISTER OF STATE OF THE MINISTRY OF ROAD TRANSPORT AND HIGHWAYS [MAJ. GEN. (RETD.) B.C. KHANDURI]: (a) and (b) The construction work of phase-II of the Kollam by-pass has